■ Guide To Career Choices
THE FUTURE IS YOURS

information

SERVICES

a brief look at:

- jobs
- education and training requirements
- wages
- outlook
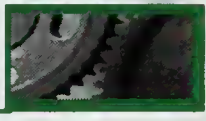
etc ILLINOIS Education·To·Careers Next Generation Education

IETC Illinois Employment & Training Center

INFORMATION SERVICES
guide no. 07

HS > High School diploma or equivalent
AD > Associate Degree of Arts/Science community college, 2 years
BA/BS > Bachelor of Arts/Science degree colleges/universities, 4 years

Career Opportunities	OUTLOOK 2008 EMPLOYMENT	LONG-TERM OUTLOOK	SHORT-TERM FORECAST	HOURLY WAGES ENTRY	MEDIAN	EXPERIENCED	EDUCATION AND TRAINING
Computer Engineers	31,672	VF	VF	$15.47	$24.13	$29.77	BS in computer engineering, electrical engineering or mathematics. Graduate degrees are required for some positions.
Computer Programmer Aides	3,784	F	VUF	$9.87	$14.14	$17.64	AD or courses in computer programming, or a BA/BS in computer science.
Computer Programmers	50,688	VF	VF	$15.20	$22.64	$29.11	Varies from a twenty-week course to a master's and doctoral program in computer science/engineering.
All Other Computer Scientists	14,752	VF	VF	$11.51	$20.79	$27.36	A master's degree or Ph.D. in computer science or engineering is the standard.
Computer Support Specialists	34,289	VF	VF	$13.01	$18.50	$24.75	BS now commonly required. In the absence of a degree, substantial experience or expertise may be needed.
Database Administrators	8,784	VF	VF	$14.91	$25.46	$29.68	Many employers seek applicants who have a BS in computer or information science or management information services.
Data Entry Keyers, Except Composing	25,727	VF	VUF	$7.10	$9.62	$11.07	Formal one- or two-year vocational/technical training is preferred by employers.
Data Processing Equipment Repairers	3,507	VF	VF	$8.83	$13.75	$18.26	Experience as a computer professional. Most jobholders have been systems analysts or programmer analysts.
Engineering/Math/Natural Science Managers	21,668	VF	VF	$24.46	$35.55	$37.93	BA/BS in field and/or background in computer science or engineering. Intensive in-house training is provided.
Business Services Sales Agents	22,797	VF	VF	$10.20	$18.21	$27.53	BA/BS in field and/or background in computer science or engineering.
Clerical/Administrative Support Supervisors	92,941	VF	F	$9.63	$14.75	$19.32	BA/BS may be required if position's duties are more managerial. Most jobholders are promoted from within.
Systems Analysts	63,284	VF	VF	$16.87	$24.52	$29.33	A college degree is usually needed. Prior work experience is extremely important.

F   Favorable
VF   Very Favorable
UF   Unfavorable
VUF   Very Unfavorable

■WHAT ARE SOME OF THE JOBS?

COMPUTER PROGRAMMERS...write and maintain the detailed instructions (called programs or software) that list in a logical order the steps that computers must follow to perform their functions. Programmers code these instructions in a conventional programming language or one of the more advanced "artificial intelligence" or "object oriented languages."

COMPUTER SYSTEMS ANALYSTS...analyze business, scientific and technical problems for application to electronic data processing systems in order to design new solutions. They may design entirely new systems, including both hardware and software or add a single new software application in order to harness more of the computer's power.

COMPUTER ENGINEERS...work with both the hardware (equipment) and software aspects of systems design and development. Often they work as part of a team that designs new computing devices or equipment.

OPERATIONS AND SYSTEMS RESEARCHERS...use computers extensively to solve problems involving the coordination of materials, machines and people. They use mathematical models to describe how things work in an establishment, to evaluate alternatives and to choose a course of action that best meets a specific goal.

COMPUTER EQUIPMENT OPERATORS...oversee the operation of computer hardware systems. Operators set controls on the computer and on peripheral devices (such as printers) required to run a particular job. They load the equipment with tapes, disks and paper as needed, monitor the computer console and respond to messages.

DATA ENTRY KEYERS...usually fill in forms that appear on a computer screen or enter a list of items or numbers. They may also manipulate existing data, edit current information or proofread new entries to a database.

■ WHAT IS THE JOB OUTLOOK?

Computer professionals will be among the fastest growing occupations through the year 2008. In addition, tens of thousands of job openings will result annually from the need to replace workers who move into managerial positions or other occupations. The demand for these workers is expected to rise as organizations attempt to maximize the efficiency of their computer systems. Competition will place organizations under growing pressure to use technological advances in areas such as office and factory automation, telecommunications technology and scientific research. Computer scientists and systems analysts will continue to need to upgrade their levels of skill and technical expertise, and their ability to interact with users will increase in importance.

Falling prices of computer hardware and software should continue to induce more small businesses to computerize their operations, further stimulating demand for computer professionals who are knowledgeable about the latest technologies and can apply to meet the needs of businesses.

■ WHERE CAN I FIND ADDITIONAL INFORMATION?

The Occupational Outlook Handbook, 2000-01 Edition, contains many additional sources of information for over 250 occupations in all sectors of the economy. You may order the Handbook by contacting the U.S. Government Bookstore, 401 South State Street, Suite 124, Chicago, Illinois 60605-1297, 312/353-5133 or check out the online version at http://stats.bls.gov/ocohome.htm.
For access to other labor market and workforce information on the internet, visit the following sites:
IDES' home page: http://www.ides.state.il.us,
LMI Source: http://lmi.ides.state.il.us,
Workforce Info Center: http://www.ILWorkInfo.com and a site targeted towards high school students:
http://www.workforceinfo.state.il.us.

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Career Guide Sources:
Illinois Department of Employment Security's "Occupational Projections" and "Occupational Employment Statistics Wage Data" and the U.S. Bureau of Labor Statistics' "Occupational Outlook Handbook"